

What is claimed is:

- 1           1.     A device comprising:  
2                 more than one spring electrical contact to contact a first surface of an  
3     object, said first surface of said object to have a material electrodeposited thereon; and  
4                 a base to directly support said first surface of said object without being  
5     directly connected to said spring electrical contacts, said base to distribute the force to  
6     seal a second surface of said object.
  
- 1           2.     The device of claim 1 including a soft, acid resistant material disposed on  
2     said base.
  
- 1           3.     The device of claim 1 wherein said base is spaced inward from said  
2     contacts.
  
- 1           4.     The device of claim 1 wherein said spring electrical contacts are connected  
2     to a frame.
  
- 1           5.     The device of claim 4 wherein said spring electrical contacts are resilient  
2     beams that terminate with tips.
  
- 1           6.     The device of claim 5 wherein said object has an outer edge, said base to  
2     distribute a force at said object outer edge and said tips to contact said object inward from  
3     said base.
  
- 1           7.     The device of claim 4 wherein said base and said frame are annular.

1           8.     The device of claim 4 wherein said frame and said beams are coated with  
2     an acid-resistant material.

1           9.     The device of claim 1 wherein said base substantially continuously  
2     contacts said surface.

1           10.    The device of claim 1 wherein said spring electrical contacts  
2     independently deflect while electrical contact is made with said object.

1           11.    A system comprising:  
2                   a frame having spring electrical contacts to electrically contact a first  
3     surface of an object to enable electrodeposition on said object first surface;  
4                   a base to directly support said object, said base and said frame not directly  
5     connected; and  
6                   a sealing ring to seal a second surface of said object to prepare for  
7     electrodeposition.

1           12.    The system of claim 11 including a plating cell to house said object for  
2     electroplating.

1           13.    The system of claim 12 including an electrode.

1           14.    The system of claim 13 including a power supply.

1           15.    The system of claim 14 including a thrust plate and a seal plate.

1           16.    The system of claim 11 wherein said base is annular defining an annular  
2   aperture.

1           17.    The system of claim 11 wherein said base is to distribute the force required  
2   to seal said second surface of said object.

1           18.    The system of claim 11 wherein said object is a wafer and a metal or metal  
2   alloy is to be deposited on said first surface.

1           19.    The system of claim 11 wherein said object is a wafer and copper or an  
2   alloy including copper is to be deposited on said first surface.

1           20.    The system of claim 11 wherein said spring electrical contacts apply a  
2   variable force less than the force that if applied would exceed the mechanical strength of  
3   said object.

1           21.    A method comprising:  
2                    sealing a second side of an object to prepare said object for  
3   electrodeposition;  
4                    directly physically supporting said object on a first side to enable said  
5   sealing; and  
6                    electrically contacting said first side of said object with spring electrical  
7   contacts to facilitate electrodeposition, said electrical spring contacts and said support not  
8   in direct contact.

1           22.    The method of claim 21 including distributing the force to seal said second  
2 side of said object about the periphery of said object.

1           23.    The method of claim 21 including applying a variable force with said  
2 spring electrical contacts to facilitate electrodeposition.

1           24.    The method of claim 23 including determining the length and the  
2 maximum displacement of said spring electrical contacts.

1           25.    The method of claim 21 including distributing the force to seal said second  
2 side of said object without exceeding the strength of said object first side.

1           26.    The method of claim 21 including depositing a conductive material on said  
2 object first side.

1           27.    The method of claim 26 including depositing a metal or metal alloy on  
2 said object first side.

1           28.    The method of claim 21 including displacing adjacent spring electrical  
2 contacts with respect to said object first side.

1           29.    The method of claim 21 including initially contacting said object with said  
2 spring electrical contacts, said initial contact having little or no associated force.

1           30.    The method of claim 21 including electrically contacting said first side of  
2 said object without exceeding the strength of said object first side.